



**UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

*MV*

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/644,793 08/24/00 MISHINA

J K-1825CIP2

┌

PM82/0911

└

EXAMINER

KANESAKA AND TAKEUCHI  
1423 POWHATAN STREET  
ALEXANDRIA VA 22314

BUCHANAN, C

ART UNIT

PAPER NUMBER

3619

DATE MAILED:

09/11/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

**Office Action Summary**

Application No.

09/644,793

Applicant(s)

MISHINA ET AL.

Examiner

Christopher R Buchanan

Art Unit

3619

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Specification***

1. The abstract of the disclosure is objected to because references numbers cited should be placed in parenthesis. Correction is required. See MPEP § 608.01(b).

2. The disclosure is objected to because of the following informalities: the cross reference on page 1 line 5 of the specification should be completed by correctly identifying the related application (should be 09/342,171) and the status of this application should be updated. The abbreviation "RTV" on page 2 line 20 of the specification should be spelled out. It is unclear if the last paragraph on page 9 of the specification is an incorporation of the related applications. If it is, the current form is improper and should be corrected. If not, then this paragraph should be deleted. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The abbreviation RTV is improper and it is unclear if the term in parenthesis is a limitation.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-4, 7-13, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saderholm et al. in view of Hirai.

With regard to claim 1, Saderholm discloses an airbag (24, Fig. 2) with a first panel (10) and a second panel (11) that are connected along their peripheral portions by sewing yarn (17, 23) or any other suitable means (col. 3 line 38). With regard to claims 7 and 8, the yarn comprises a first seam (17) positioned outside of a second seam (23), wherein the second seam is broken during inflation of the airbag (see Figs. 2 and 3, col. 4 line 8+).

The airbag of Saderholm differs from the claimed invention in that it does not show the panels to be connected with an elastic adhesive [claim 1], the adhesive to have an elongation of more than 200% [claim 2], the adhesive to be a silicone or urethane adhesive [claims 3 and 4], the seam on the peripheral portions of the airbag panels to be covered by sealant [claim 9], the amount of adhesive applied to be from 0.01 to 0.05 g/m<sup>2</sup> [claim 10], the adhesive to be room temperature vulcanizing (RTV) silicone rubber [claim 11], the panels to be made of synthetic resin woven fabrics [claim

12], the adhesive to be stretchable [claim 13], the thickness of the adhesive to be uneven and thickest in areas of largest stress [claims 15 and 16].

With regard to claim 1, Hirai discloses an airbag (1, Fig. 2) with a first panel (3) and a second panel (2) that are connected along their peripheral portions by an elastic adhesive (5, see abstract). With regard to claims 2-4, 11, and 13, the adhesive can be a number of soft thermoplastic elastomers, such a urethane (col. 3 line 37). Silicone and RTV silicone rubber are other thermoplastic elastomers that are well known in the art and it is well known that these elastomers are soft, flexible, and stretchable to a high degree (col. 1 line 7+, col. 3 line 37+). With regard to claim 12, Hirai states that airbag panels are conventionally made of synthetic resin woven fabrics (col. 1 line 7). With regard to claims 15 and 16, Harai notes (col. 1 line 18, col. 3 line 19) that a uniform thickness of adhesive results in a bond of uniform strength. It would be obvious to one skilled in the art to vary the thickness of the adhesive to create a bond of the desired strength.

It would be obvious to one skilled in the art to modify the airbag of Saderholm to include panels connected with an elastic adhesive, to make the adhesive a thermoplastic elastomer, such a urethane, to make the panels of synthetic resin woven fabrics, and to make the thickness of the adhesive uneven and thickest in areas of largest stress, as taught by Hirai, to provide a means for increasing the strength of the connection between airbag panels.

Saderholm et al. in view of Hirai disclose the claimed invention except for the seam on the peripheral portions of the airbag panels to be covered by sealant [claim 9]

Art Unit: 3619

and the amount of adhesive applied to be from 0.01 to 0.05 g/m<sup>2</sup> [claim 10]. With regard to claim 9, applicant's prior art shown in Fig. 4b shows the seam (3) on the peripheral portions of the airbag panels (1', 2') to be covered by sealant (4) (application page 1 line 23+). With regard to claim 10, it would have been obvious to one having ordinary skill in the art at the time the invention was made to choose the amount of adhesive applied to be from 0.01 to 0.05 g/m<sup>2</sup>, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272,205 USPQ 215 (CCPA 1980). Furthermore, considering the adhesive amounts disclosed on page 5 of the translation of Japanese patent 10-102029, one skilled in the art could infer the amounts claimed in claim 10.

7. Claims 5, 6 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saderholm et al. in view of Hirai further in view of Gray et al.

Saderholm et al. in view of Hirai disclose all the features of the claimed invention except for at least one of the panels to be coated with a silicone or urethane coating [claims 5 and 6] and the adhesive to be applied outside and in the vicinity of the seam [claim 14].

Gray discloses an airbag (1, Fig. 2) wherein at least one of the panels (8, 10) is coated with a with a polymerized resin coating (16, Fig. 3, col. 13 line 39). As discussed above the coating could be a silicone or urethane coating. The coating is applied outside and in the vicinity of the seam (see Fig. 3, col. 13 line 47).

Art Unit: 3619

It would be obvious to one skilled in art to modify the airbag of Saderholm et al. in view of Hirai so that at least one of the panels is coated with a silicone or urethane coating and the adhesive is applied outside and in the vicinity of the seam, as taught by Gray, to provide reinforcement for the airbag panels.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Jackson et al. discloses an airbag with stitching that breaks during deployment. Breed et al. discloses an airbag with separate panels that are bonded together. Chiou discloses a silicone rubber coating for application to woven fabrics.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R Buchanan whose telephone number is 703-306-5782. The examiner can normally be reached on M-F 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lanna Mai can be reached on 703-308-2486. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Art Unit: 3619

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

CB

Christopher Buchanan  
September 7, 2001

LANNA MAI  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 8

*Lanna Mai*